ABSTRACT

Background

Thyroid function abnormalities are commonly seen in type 2 diabetes mellitus. The prevalence of thyroid abnormalities in diabetes mellitus varies from 10% to 30% in different parts of the world. Recognition and early intervention of thyroid dysfunction may significantly reduce the risk of adverse cardiovascular and cerebrovascular events in people with diabetes mellitus.

Aims and objectives

To compare the prevalence and distribution of thyroid function abnormalities in people with newly diagnosed type 2 diabetes mellitus and people without diabetes mellitus.

Methods

In this cross sectional study 194 subjects with newly diagnosed type 2 diabetes mellitus and 190 subjects without diabetes mellitus were investigated for fasting and postprandial blood sugar, free T3,free T4,TSH, total cholesterol and triglyceride levels.Statistical analysis was done using SPSS 16 software.The difference between various parameters was considered statistically significant when the p value was < 0.05

Results

The prevalence of thyroid dysfunction was significantly higher in people with newly diagnosed type 2 diabetes mellitus (23.7%) than

people without diabetes mellitus(6.3%) (p value < 0.001).Prevalence of thyroid dysfunction among males is 9.94% and among females is 20.20%(p value 0.004). Among people with newly diagnosed type 2 diabetes mellitus the prevalence of subclinical hypothyroidism, overt hypothyroidism, subclinical hyperthyroidism, overt hyperthyroidism are 16.5%, 4.6%,2.1%,0.5% respectively. Among non diabetic subjects the prevalence of subclinical hypothyroidism, overt hypothyroidism and subclinical hyperthyroidism are 4.7%,1.1%,0.5% respectively. Mean age of people with thyroid dysfunction is 51.29% $\pm$ 9.74years and in people without thyroid dysfunction is 50.77$\pm$10.08years (p value > 0.05).

Conclusion:

Thyroid function abnormalities are more common in people with newly diagnosed type 2 diabetes mellitus than non-diabetic subjects and the prevalence is higher in females than males. Subclinical hypothyroidism is the most common thyroid abnormality both in diabetic and non diabetic subjects. Our study emphasis the need to check thyroid function status in people with diabetes mellitus.

Keywords: type 2 diabetes mellitus, thyroid dysfunction, TSH, free T3, free T4.